



Perth 2017



Space Shepherd: Satellite remote sensing of sheep distributions in 2020 and 2030

Team Name: The Next 100 Years

Scan the QR code to enter the interactive geovisualisation system for your decision making



Future Sheep Population in Australia



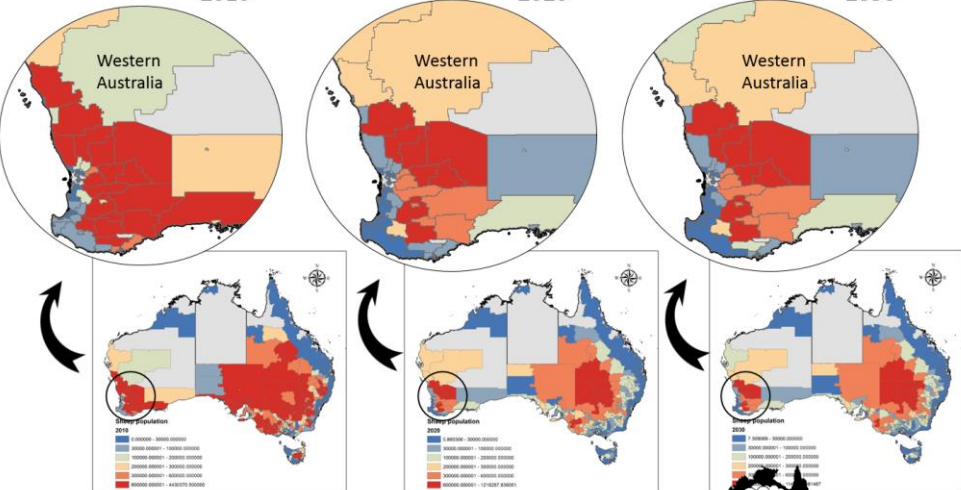
Future Sheep Population in WA

Flow chart of this project

2010

2020

2030



Future sheep distributions in 2020 and 2030

Scan the QR code to enter the interactive geovisualisation system for your decision making



Future Sheep Population in Australia



Future Sheep Population in WA

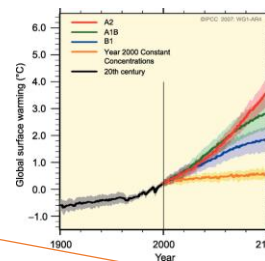
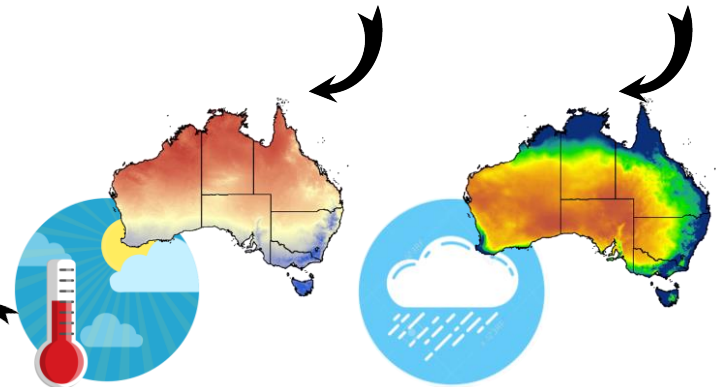


Space Shepherd:
Satellite remote sensing of sheep
distributions in 2020 and 2030

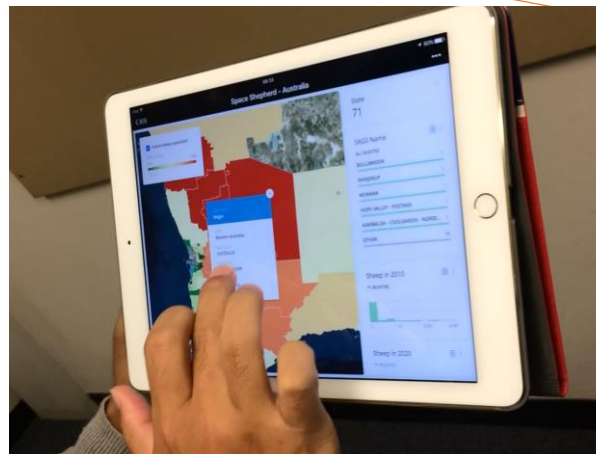
Team: The Next 100 Years

Machine
Learning

Satellite remote
sensing data



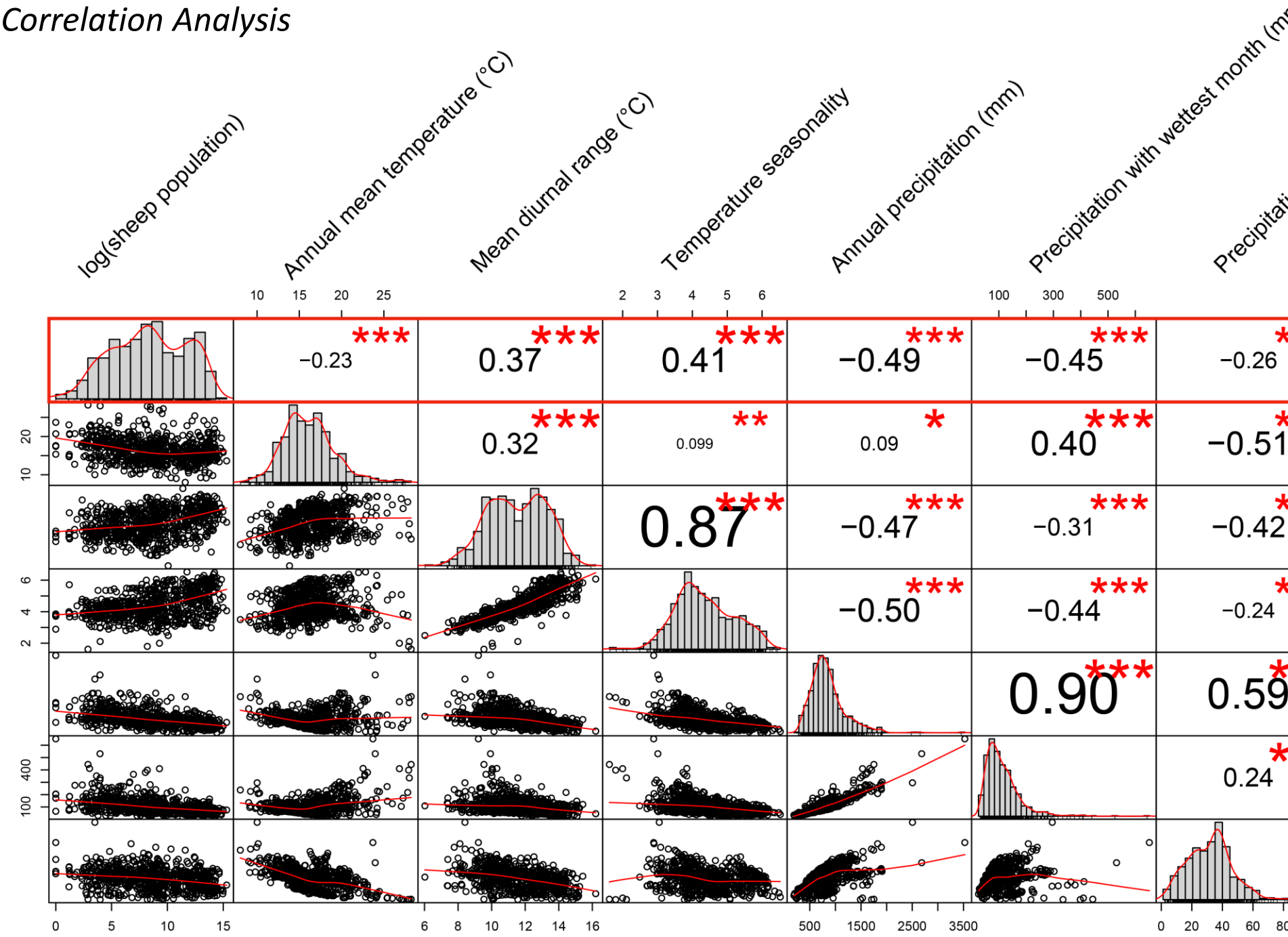
IPCC future global
climate scenarios



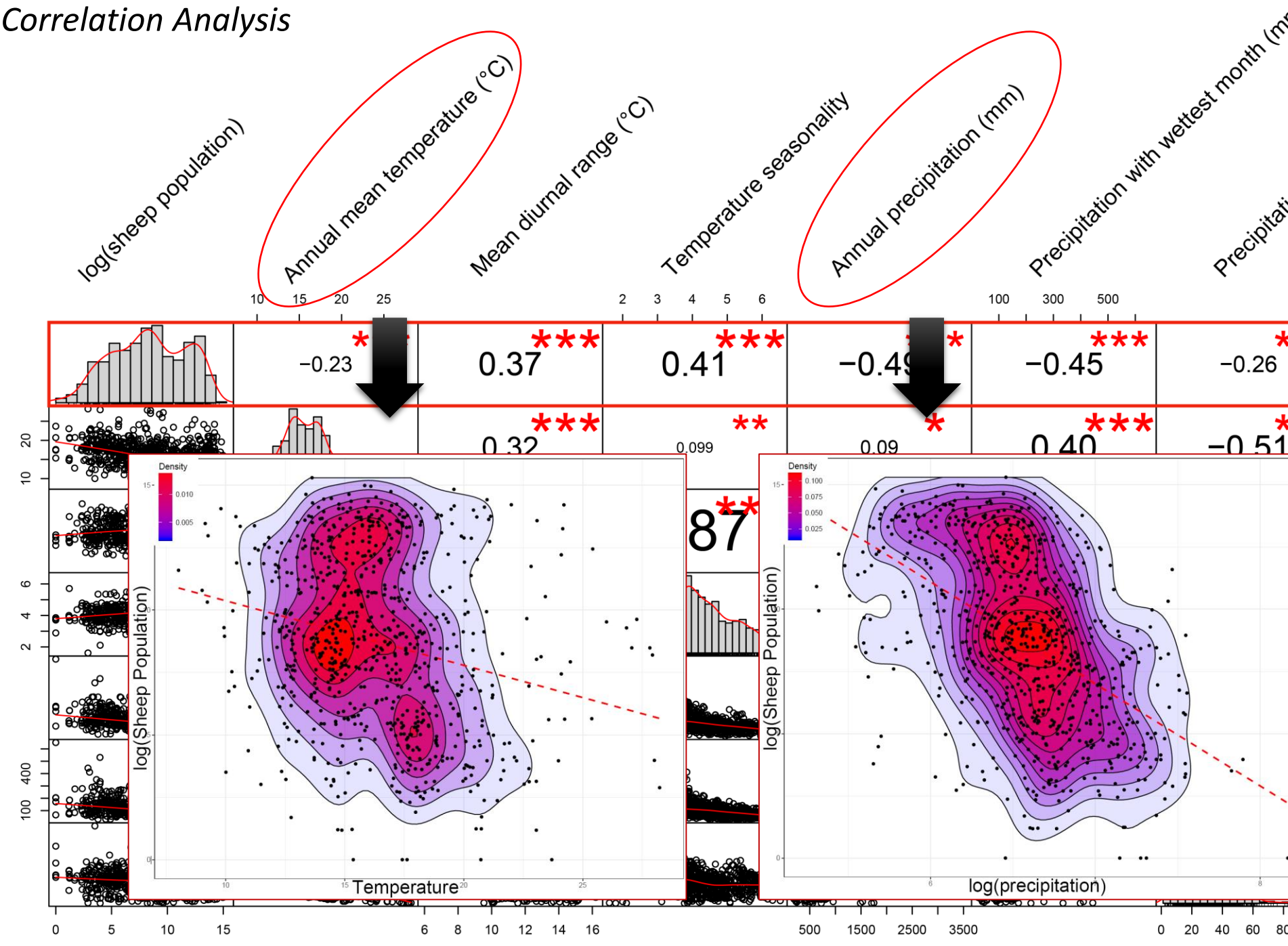
Online interactive
geovisualisation system

Predicting sheep population in 2020 and 2030

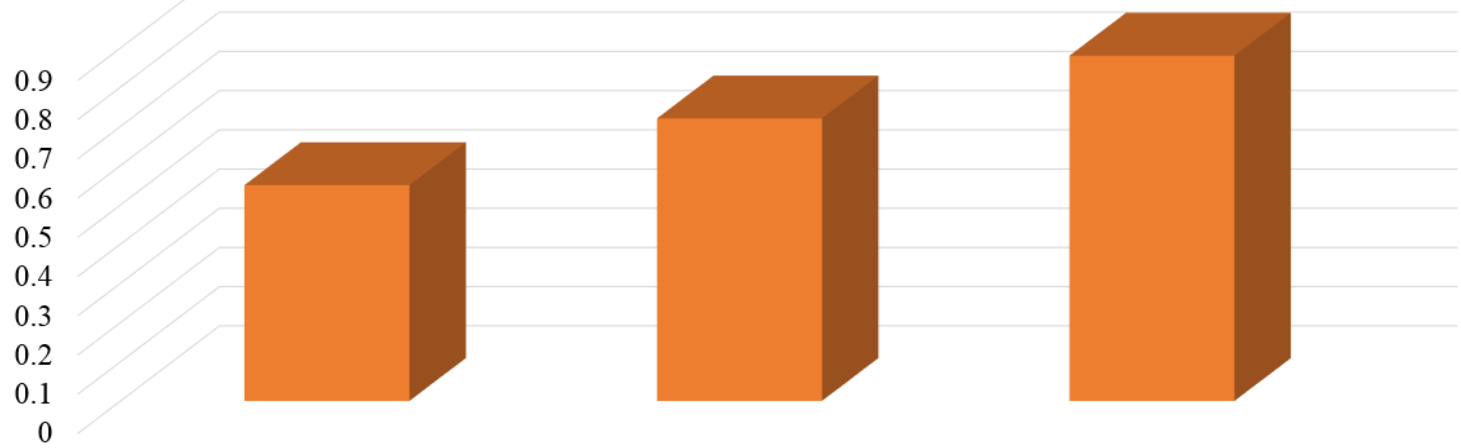
Correlation Analysis



Correlation Analysis



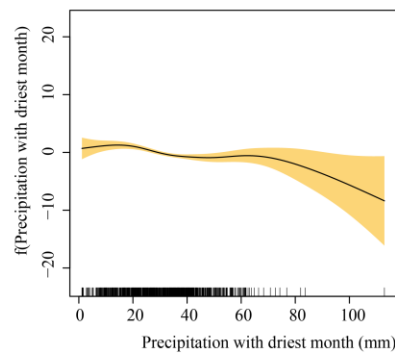
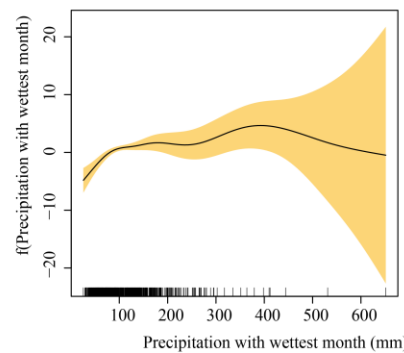
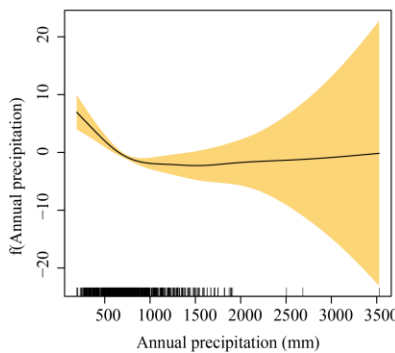
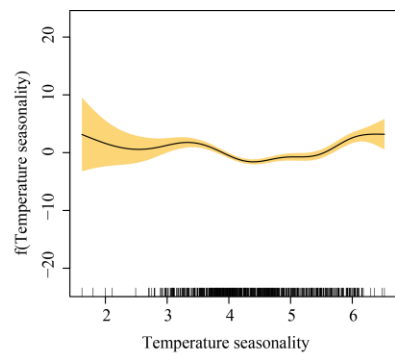
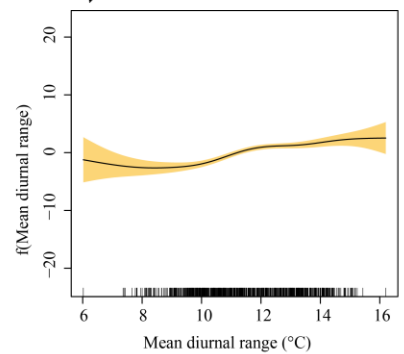
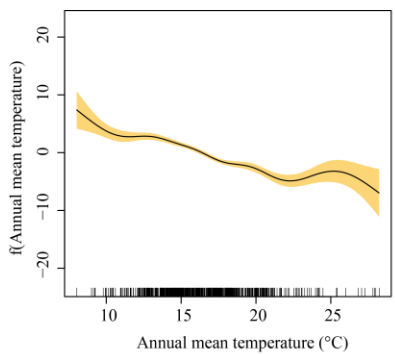
Model Comparison



Linear regression

Nonlinear regression
(Generalized Additive Model)

Machine learning method
(Random Forest)

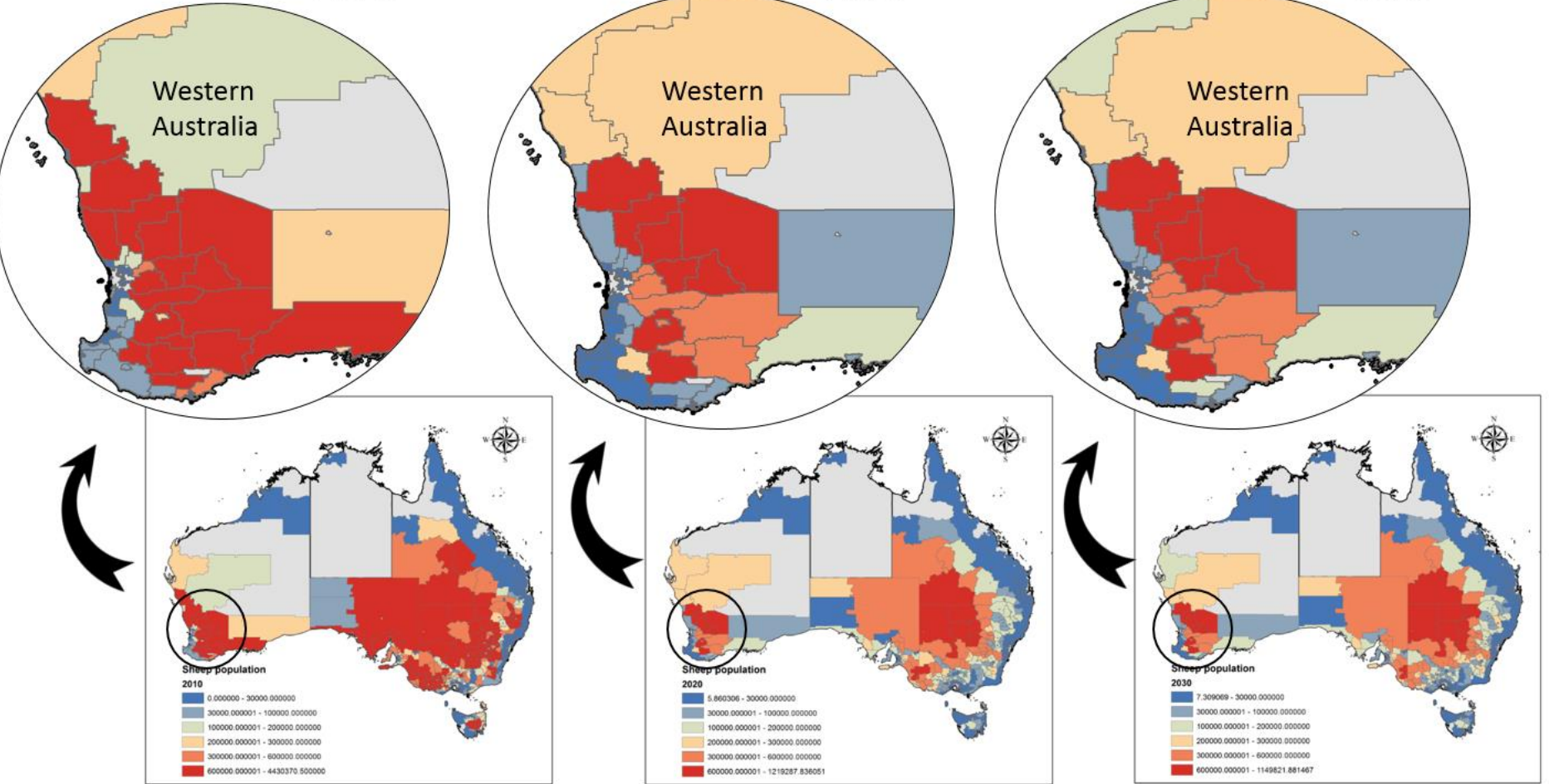


Future Predictions of Sheep Population

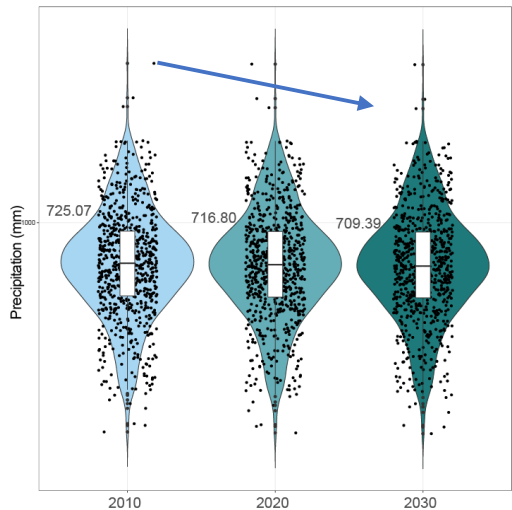
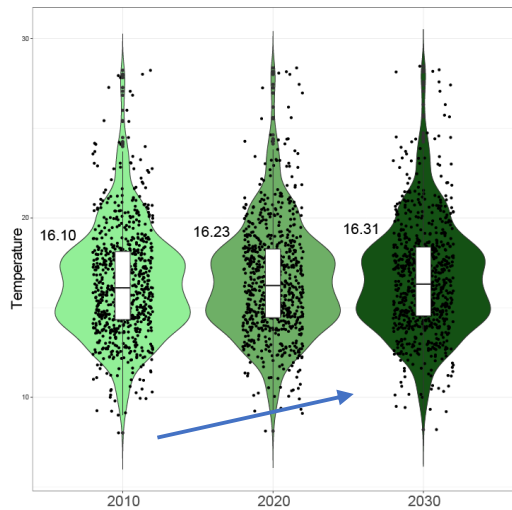
2010

2020

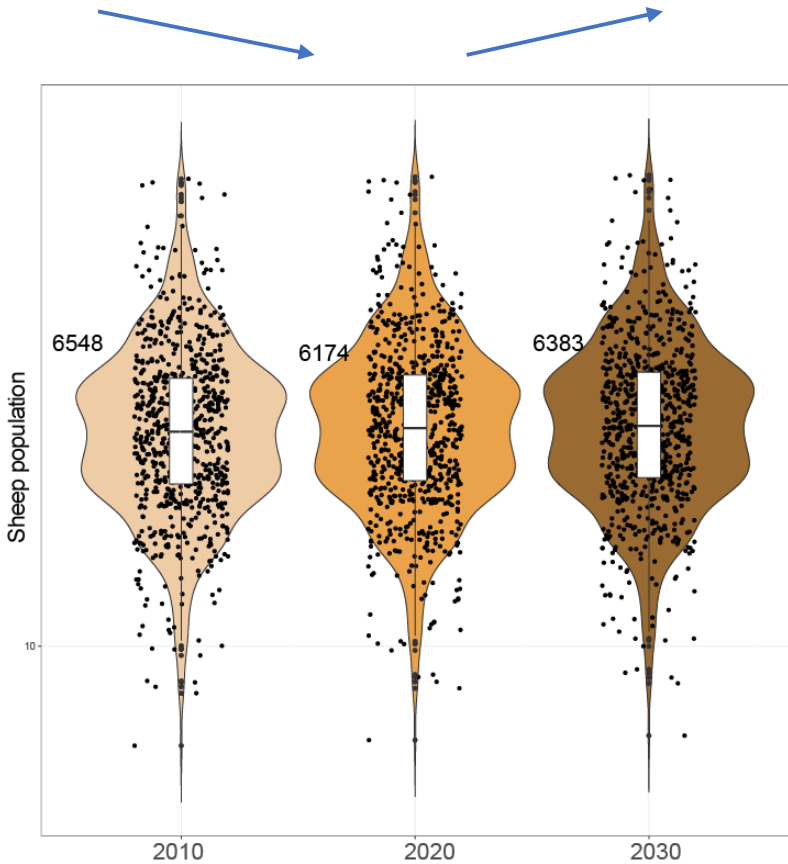
2030



Statistical Analysis of Predictions



Machine Learning





Perth 2017



**Space Shepherd:
Satellite remote sensing of sheep
distributions in 2020 and 2030**

Team Name: The Next 100 Years